aiwa

COMPACT DISC STEREO SYSTEM

NSX-AV320

OPERATING INSTRUCTIONS

En (English)

R·D·S EON

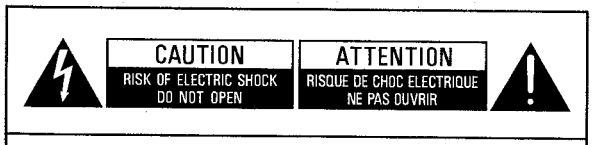
COMPACT disc DIGITAL AUDIO

88-NFV-906-01E
980420AKY-U-8-AWM

EZ

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



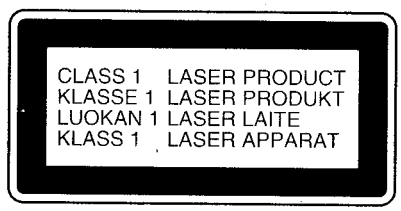
CAUTION

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This compact disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the exterior.



CAUTION!

Invisible laser radiation when open and inter locks defeated. Avoid exposure to beam.

ADVARSEL!
Usynlig laserstråling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

VAROITUS!
Laitteen käyttäminen muulla kuin tässä käyttöohjeessaa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteiylle.

VARNING!
Om apparaten används på annat sätt än i denna bruksanvisning specificerats, kan användaren utsätta för osnylig laser-strålning, som överskrider gränsen för laserklass 1.

PRECAUTIONS

Read the Operating Instructions carefully and completely before operating the unit. Be sure to keep the Operating Instructions for future reference. All warnings and cautions in the Operating Instructions and on the unit should be strictly followed, as well as the safety suggestions below.

Installation

1 **Water and moisture** — Do not use this unit near water, such as near a bath, sink, swimming pool, or the like.
2 **Heat** — Do not use this unit near sources of heat, including heating vents, stoves, or other appliances that generate heat. It also should not be placed in temperatures less than 5°C (41°F) or greater than 35°C (95°F).
3 **Mounting surface** — Place the unit on a flat, even surface.
4 **Ventilation** — The unit should be situated with adequate space around it so that proper heat ventilation is assured. Allow 10 cm (4 in.) clearance from the rear and the top of the unit, and 5 cm (2 in.) from each side.
- Do not place the unit on a bed, rug, or similar surface that may block the ventilation openings.
- Do not install the unit in a bookcase, cabinet, or airtight rack where ventilation may be impeded.

5 **Objects and liquid entry** — Take care that objects or liquids do not get inside the unit through the ventilation openings.
6 **Carts and stands** — When placed or mounted on a stand or cart, the unit should be moved with care.
Quick stops, excessive force, and uneven surfaces may cause the unit or cart to overturn or fall.
7 **Condensation** — Moisture may form on the CD pickup lens when:
- The unit is moved from a cold spot to a warm spot
- The heating system has just been turned on
- The unit is used in a very humid room
- The unit is cooled by an air conditioner

When this unit has condensation inside, it may not function normally. Should this occur, leave the unit for a few hours, then try to operate again.
8 **Wall or ceiling mounting** — The unit should not be mounted on a wall or ceiling, unless specified in the Operating Instructions.

Electric Power

1 **Power sources** — Connect this unit only to power sources specified in the Operating Instructions, and as marked on the unit.
2 **AC power cord**
- When disconnecting the AC power cord, pull it out by the AC power plug. Do not pull the cord itself.
- Never handle the AC power plug with wet hands, as this could result in fire or shock.
- Power cords should be firmly secured to avoid being severely bent, pinched, or walked upon. Pay particular attention to the cord from the unit to the power socket.
- Avoid overloading AC power plugs and extension cords beyond their capacity, as this could result in fire or shock.

3 **When not in use** — Unplug the AC power plug from the AC power socket if the unit will not be used for several months or more.. When the cord is plugged in, a small amount of current continues to flow to the unit, even when the power is turned off.

Maintenance

Clean the unit only as recommended in the Operating Instructions.

Damage Requiring Service

Have the units serviced by a qualified service technician if:

- The AC power cord or plug has been damaged
- Foreign objects or liquid have got inside the unit
- The unit has been exposed to rain or water
- The unit does not seem to operate normally
- The unit exhibits a marked change in performance
- The unit has been dropped, or the cabinet has been damaged

DO NOT ATTEMPT TO SERVICE THE UNIT YOURSELF.

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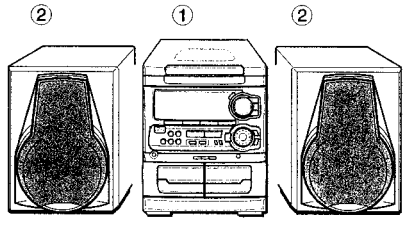
En

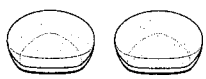
SETTING UP

The DOLBY PRO LOGIC system which is the biggest feature of this stereo system provides you with multi channel sound in your home.
Complete setting and connection of the main unit, supplied speakers, your TV and video equipment according to the following procedure.

Check your system and accessories

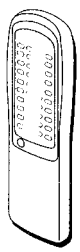


① CX-NAV320 Compact disc stereo cassette receiver
② SX-NAV304 Front speakers

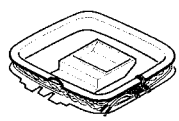


SX-R275
Surround speakers

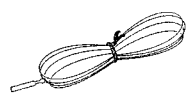
SX-C605
Centre speaker



Remote control



MW/LW loop antenna

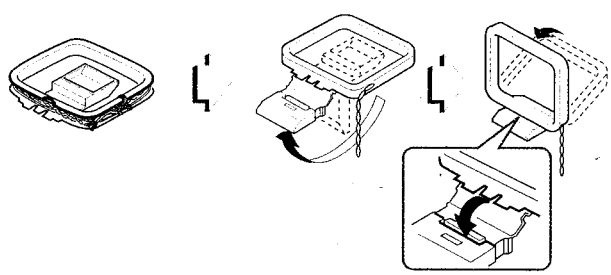


FM antenna

Operating Instructions, etc.

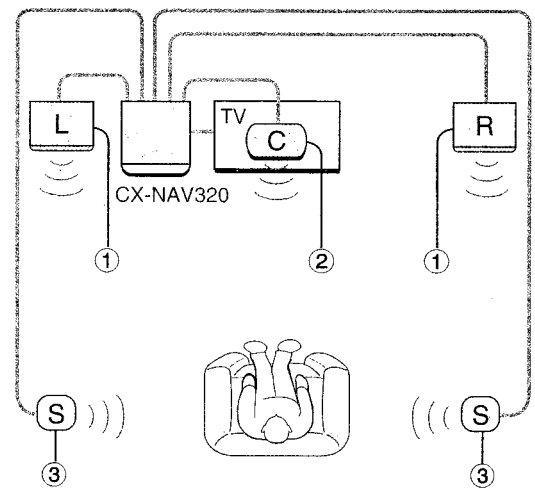
To stand the MW/LW loop antenna on a surface

Fix the claw to the slot.



POSITIONING THE SPEAKERS

To achieve the optimum effects obtainable with the DOLBY PRO LOGIC system, it is important to position the speakers properly. Refer to the following illustration to find out the best location in your room.



① **Front speakers**
② **Centre speaker**
Position in the centre of the two front speakers. In addition, position on or below the TV set, if connecting a TV set to the unit.
③ **Surround speakers**
Place the surround speakers directly to the side of or slightly behind the listening area. Align them horizontally, about 1 metre (3.2 feet) above ear height.

NOTE

- No sound is heard from the center and surround speakers when the DOLBY PRO LOGIC set to off.
- The centre speaker sounds only when the DOLBY PRO LOGIC is set to on.

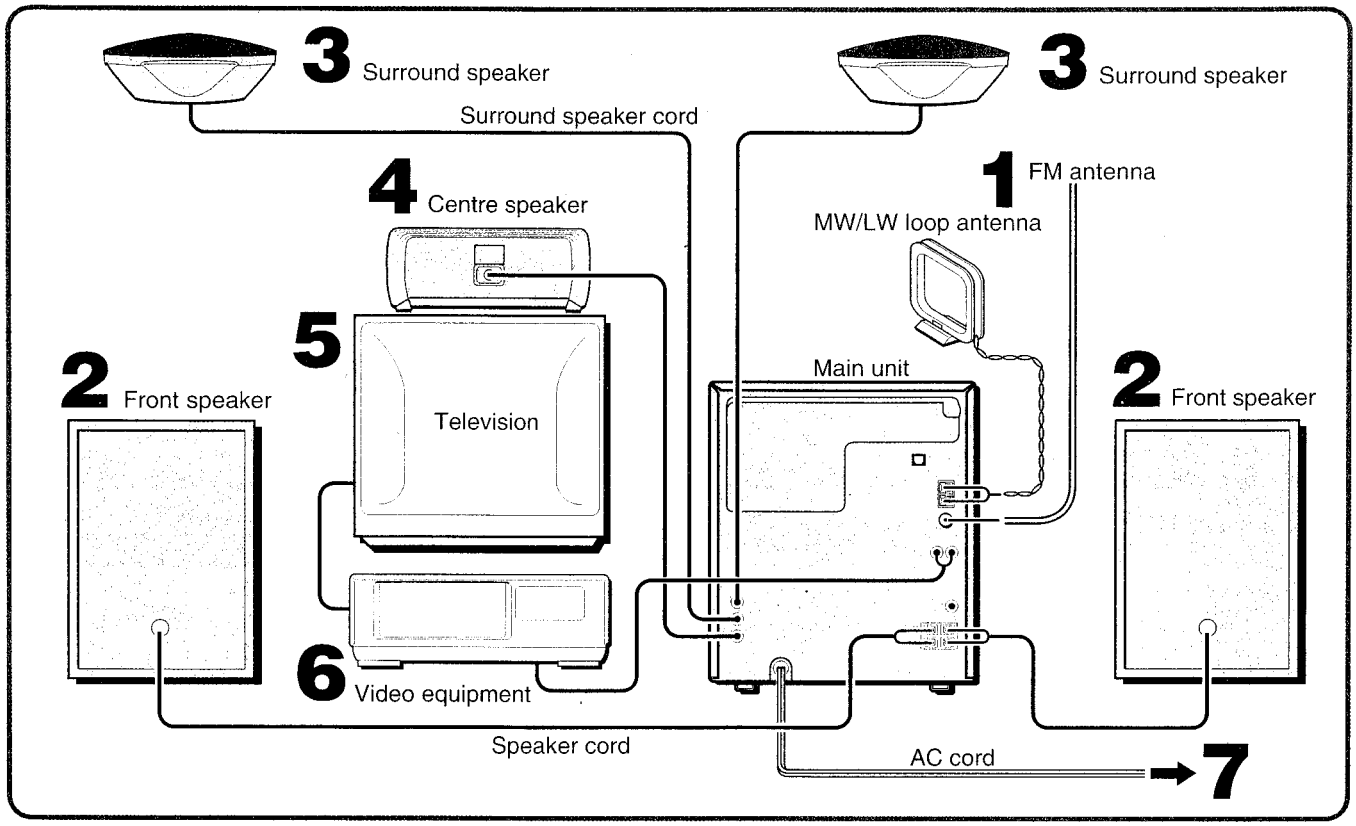
CONNECTIONS

Before connecting the AC cord

The rated voltage of your unit shown on the rear panel is 230 V AC. Check that the rated voltage matches your local voltage.

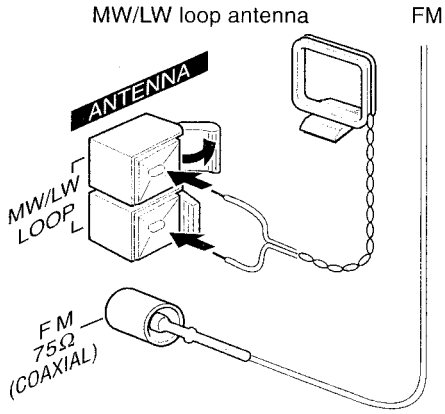
IMPORTANT

Connect the speakers, antennas, and all optional equipment first. Then connect the AC cord.



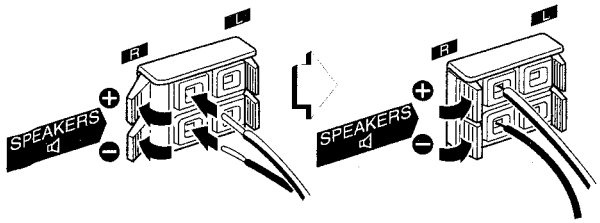
1 Connect the supplied antennas.

Connect the FM antenna to **FM 75** Ω terminal and the MW/LW loop antenna to **MW/LW LOOP** terminals.



2 Connect the front speakers.

The speaker placed on the right side of the unit facing you is "the right speaker" and the other one is "the left speaker".



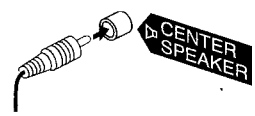
The cords with white stripes should be connected to ⊕ terminals and the other cords to ⊖ terminals.

3 Connect the surround speakers.

Connect the surround speaker cords to **SURROUND SPEAKERS** terminals.
There is no difference between the surround speakers. Both speakers can be connected as R (right) or L (left).

4 Connect the centre speaker.

Connect the centre speaker cord to **CENTER SPEAKER** terminal.



5 Connect the video equipment.

Connect **VIDEO/AUX** jack of this unit to the audio output jack of the video equipment with an optional audio connecting cord.

6 Connect the Television to the video equipment.

Refer to the Operating Instructions of the connected equipment for details.

7 Connect the AC cord to an AC power socket.

To position the antennas

FM unipolar antenna:

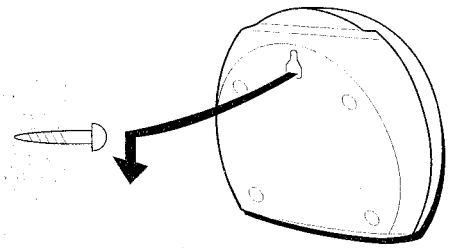
Extend fully and position for the best possible reception.
This antenna is of an instant type, so the use of an outdoor antenna is recommended.

MW/LW loop antenna:

Position to find the best possible reception.

To mount the surround speakers on the wall

Mount each speaker on a spot that can hold its weight.

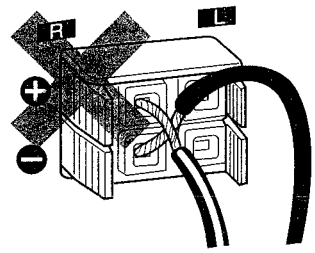


NOTE

Sound is not heard from the surround speakers when the DOLBY PRO LOGIC is set to off.

NOTE

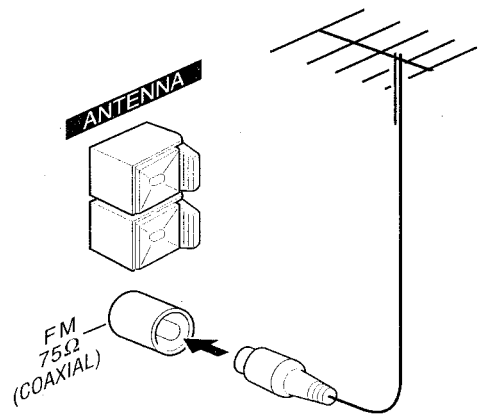
- Be sure to connect the speaker cords correctly. Improper connections can cause short circuits in **SPEAKERS** terminals.



- Do not leave objects generating magnetism, such as credit cards, near the speakers, as these objects may be damaged.
- Do not bring the FM antenna near metal objects or curtain rails.
- Do not bring the MW/LW loop antenna near other optional equipment, the stereo system itself, the AC cord or speaker cords, since noise will be picked up.
- Do not unwind the MW/LW loop antenna wire.

CONNECTING AN OUTDOOR ANTENNA

For better FM reception, use of an outdoor antenna is recommended.
Connect the outdoor antenna to **FM 75 Ω** terminal.

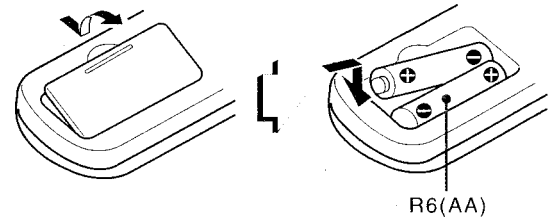


To connect other optional equipment → page 24.

REMOTE CONTROL

Inserting batteries

Detach the battery cover on the rear of the remote control and insert two R6 (size AA) batteries.



When to replace the batteries

The maximum operational distance between the remote control and the sensor on the main unit should be approximately 5 metres (16 feet). When this distance decreases, replace the batteries with new ones.

Using the remote control

The instructions in this manual refer mainly to the buttons on the main unit. Buttons on the remote control with the same names as those on the main unit can be used as well.

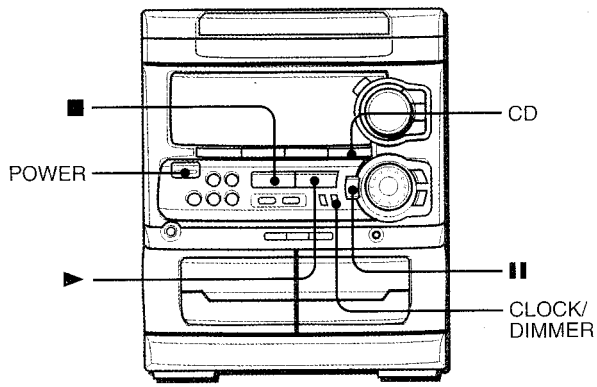
◄►/► DIRECTION/PRESET on the remote control

The function is the same as that of ► **PRESET** on the main unit.

NOTE

- If the remote control is not going to be used for an extended period of time, remove the batteries to prevent possible electrolyte leakage.
- The remote control may not operate correctly when:
  - The line of sight between the remote control and the remote sensor inside the display window is exposed to intense light, such as direct sunlight
  - Other remote controls are used nearby (those of a television, etc.)

BEFORE OPERATION



To turn the power on

Press one of the function buttons (**TAPE**, **TUNER**, **VIDEO/AUX**, **CD**). Playback of the inserted disc or tape begins, or the previously tuned station is received (Direct Play Function).
POWER is also available.
When the unit is turned on, the disc compartment may open and close to reset the unit.

To turn the power off

Press **POWER**.

Flash window

The window on the top of the unit lights up or flashes while the unit is being powered on.
To turn off the light of the top window, press ■ while pressing **CD**. To turn back on, repeat the above.

Game Demo

When the AC cord is connected, the display window demonstrates the game Demo. When the power is turned on, the game Demo is overridden by the operation display. When the power is turned off, the game Demo is restored.

> **To cancel the game Demo**
> Press **II SET** while the power is off. The clock flashes on the display. (To set the current time, see "SETTING THE CLOCK" on page 21.) To re-activate game Demo, press ► while the power is off.

To play the game Demo

1 Press ►.
Three numbers on the display start to run.
2 Press ■ once.
The number on the left side stops.
3 Press ■ twice to stop the remaining two numbers.

Scoring:
20 points are given to start the game.
If all the numbers are equal, 50 points are added to the score.
If not equal, one point is subtracted.
If the gained points reach 9999, you win.
If the gained points fall to 0, you lose.

To reset the game

Press **CLOCK/DIMMER**, then press ►. The game starts again.

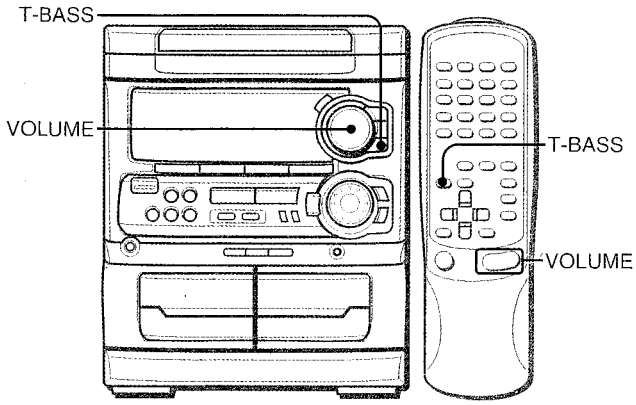
To dim the illumination of the display

1 Press **CLOCK/DIMMER** twice so that "DIMMER" is displayed, then press **II SET** within 4 seconds.
2 Press ◄◄ or ►► repeatedly to select the dimmer mode as follows.

DIMMER 1 → DIMMER 2 → DIM-OFF (cancel)

3 Press **II SET** within 4 seconds.
DIMMER 1: The illumination of the display is dimmer than usual, and the spectrum analyzer lights off.
DIMMER 2: The illumination of the display is dimmer than DIMMER 1, and the illumination on the buttons light off.
DIM-OFF: The normal display is resumed.

AUDIO ADJUSTMENTS



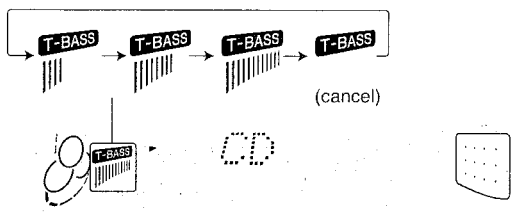
VOLUME

Turn VOLUME on the main unit, or press VOLUME on the remote control.
The volume level is displayed as a number from 0 to MAX (50). The volume level is automatically set to 20 when the power is turned off with the volume level set to 21 or more.

To change the left/right balance
Press **MANUAL SELECT** on the remote control. L/R is displayed for 2 seconds. Press ◄◄ **DOWN** or ►► **UP** on the remote control within these 2 seconds.
• The DOLBY PRO LOGIC front speakers level is also changed. (See page 19)

SUPER T-BASS SYSTEM

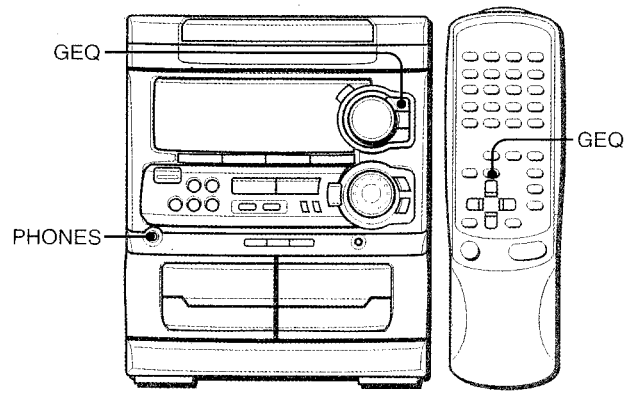
The T-BASS system enhances the realism of low-frequency sound.
Press T-BASS.
Each time it is pressed, the level changes. Select one of the three levels, or the off position to suit your preference.



To select with the remote control
press **T-BASS**.

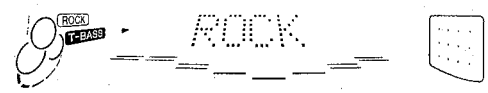
NOTE
Low frequency sound may be distorted when the T-BASS system is used for a disc or tape in which low frequency sound is originally emphasized. In this case, cancel the T-BASS system.

GRAPHIC EQUALIZER

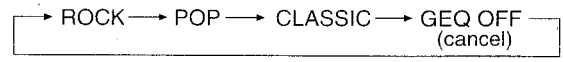


This unit provides the following three different equalization curves.
ROCK: Powerful sound emphasizing treble and bass
POP: More presence in the vocals and midrange
CLASSIC: Enriched sound with heavy bass and fine treble.

Press GEQ repeatedly until the desired equalization curve is displayed.



The GEQ mode is displayed cyclically as follows.

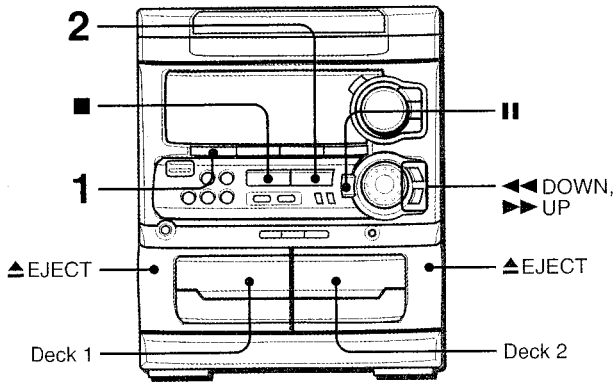


To cancel the selected mode
Press GEQ repeatedly so that "GEQ OFF" appears on the display.

Using the headphones
Connect headphones to the **PHONES** jack with a standard stereo plug (ø6.3 mm; 1/4 inch).
No sound is output from the speakers while the headphones are plugged in.

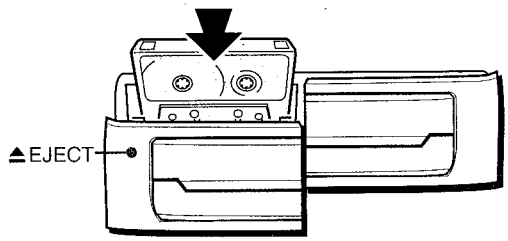
Sound adjustment during recording
The output volume and tone of the speakers or headphones may be freely varied without affecting the recording.

BASIC OPERATIONS



Use Type I (normal) tapes only.

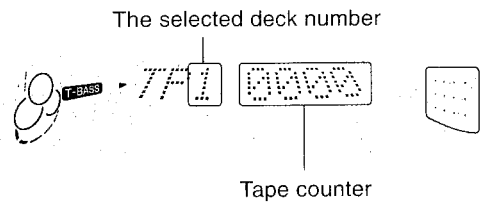
1 Press TAPE and press ⏏ EJECT to open the cassette holder.



Insert a tape with the exposed side down. Push the cassette holder to close.

2 Press ▶ to start play.

Only the side facing out from the unit can be played back.



To select a playing deck
When tapes are loaded in both decks, press **TAPE** first to select a deck.
The selected deck number is displayed.

To stop play, press ■.
To pause play (deck 2 only), press II. To resume play, press again.
To fast forward or rewind, press ◀◀ or ▶▶. Then press ■ to stop the tape.

To start play when the power is off (Direct Play Function)
Press **TAPE**. The power is turned on and play of the inserted tape begins.

To set the tape counter to 0000
Press ■ **CLEAR** in stop mode.
The counter is also set to 0000 when the cassette holder is opened.

When tapes are loaded in both decks
After playback on deck 1 finishes, the tape in the deck 2 will start to play without interruption and will stop at the end of the tape. (Continuous play)

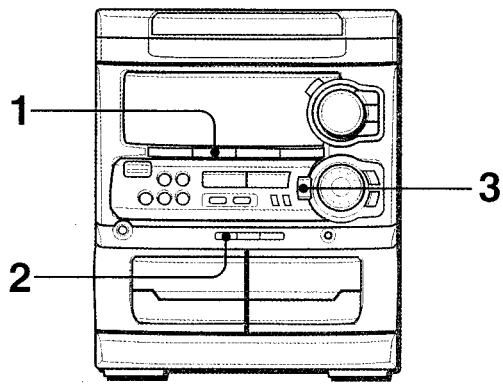
PRESETTING STATIONS

The unit can store a total of 32 preset stations. Presetting allows you to tune in to a station directly. Stations are assigned preset numbers, beginning from 1 in consecutive order for each band (FM, MW, LW).

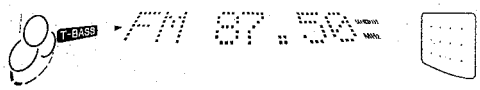
Automatic presetting:
This unit has a function for reception of *[1]RDS (Radio Data System) and other stations.
FM RDS stations take priority over other FM stations if there are more than 32 receivable stations.
Manual presetting:
You can select stations to be preset from all the bands.

AUTOMATIC PRESETTING

The tuner scans through the receivable frequency range and stores stations automatically.



1 **Press TUNER BAND.**
"FM" is displayed.



2 **Keep RT pressed for 4 seconds until AUTO PRESET is displayed.**
II SET flashes for 4 seconds.

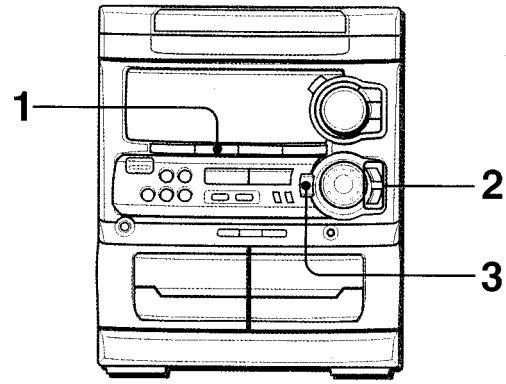
3 **Press II SET while II flashes.**
The tuner searches for a station, beginning with the FM band. When a tuned station is stored, the selected preset number flashes on the display.

The search continues on the MW and LW bands if preset numbers are still available.
When automatic presetting has been completed, the display returns to the first preset station.

When the tuner detects *[2]identical RDS stations with alternative frequencies
Only the station with the stronger signal is stored.
Before storing an RDS station, the tuner checks first whether the same stations on the other frequencies are present, and stores the station with the best reception.

NOTE
When automatic presetting is done, all previously stored stations are cleared.

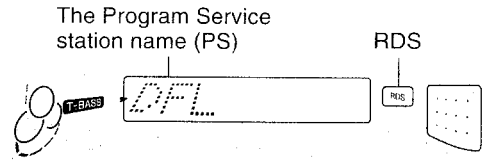
MANUAL PRESETTING



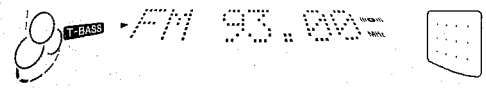
1 **Press TUNER BAND repeatedly to select the band.**

FM → MW → LW

2 **Press ◄◄ DOWN or ►► UP to select a station.**
Each time the button is pressed, the frequency changes.
ⓐ When tuning in to an FM RDS station
After TUNE on the display goes out, the Program Service station name (*[3]PS) is displayed and "RDS" lights up.



ⓑ When tuning in to the other stations
After TUNE on the display goes out, the band is displayed.



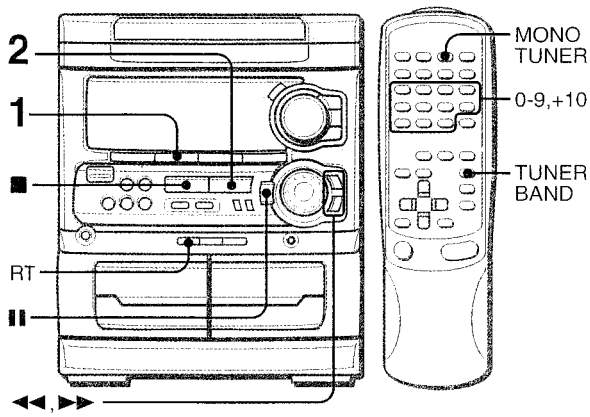
• During FM stereo reception, ((◎)) lights.

3 **Press II SET to store the station.**
The selected preset number flashes.

4 **Repeat steps 1 to 3 to store the stations.**
The next station will not be stored if a total of 32 preset stations for all the bands have already been stored.

To search for a station quickly with ◄◄ DOWN or ►► UP (Auto Search)
Keep one of the buttons pressed until the tuner starts searching for a station. The search stops when the tuner tunes in to a station.
To stop the Auto Search manually, press one of the buttons.
• The Auto Search may not stop at stations with very weak signals.

RECEPTION BY PRESET NUMBER



1 **Press TUNER BAND to select a band.**

2 **Press ► PRESET repeatedly.**
Each time the button is pressed, the next highest number is selected.

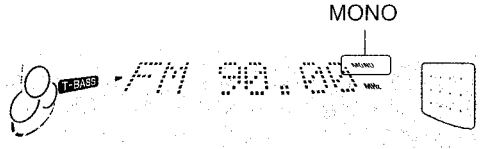
Selecting a preset number on the remote control
Press **TUNER BAND** to select a band. Then, press the numbered buttons to select a preset number.
Example:
To select preset number 20, press **+10**, **+10** and **0**.
To select preset number 15, press **+10** and **5**.

To clear a preset station
Select the preset number of the station to be cleared. Then, press ■ **CLEAR**, and press **II SET** within 4 seconds.
The preset numbers of all stations in the band with higher numbers are also decreased by one.

To tune in to a station which is not preset
Press **TUNER BAND** to select a band, and press **◄◄ DOWN** or **►► UP** to select the station.

To play a tuned station when the power is off (Direct Play Function)
Press **TUNER BAND**. The power is turned on and the tuned station is played.

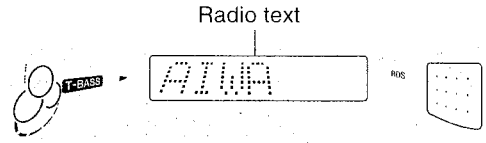
When an FM stereo broadcast contains noise
Press **MONO TUNER** on the remote control to display "MONO".



Noise is reduced, although reception is monaural.
To restore stereo reception, press the button so that the "MONO" indicator goes out.

NOTE
RDS functions may not work correctly if the RDS transmission data from the station contains too much interference or the reception signal is too weak.

To display radio text (*4RT) during RDS reception
When the tuned station is transmitting RT codes, text appears on the display by pressing RT. To return to the normal display, press RT again.
If the tuned station is not transmitting RT codes, "NO RT" is displayed when you press RT.



***1RDS**
Today many stations transmit so-called RDS (Radio Data System) codes that contain a variety of additional information along with regular sound signals.

***2Identical RDS stations with alternative frequencies (AF)**
This is a list of alternative frequencies that gives information on the various transmitters broadcasting the same program in the same reception area. It enables receivers equipped with memory to store the list, to reduce the time needed for switching to another transmitter.

***3Program service station name (PS)**
This is a name consisting of not more than 8 alphanumeric characters, which is displayed in order to inform listeners about the program service being broadcast by the radio station.
Example: BBC 1
Characters which can be displayed

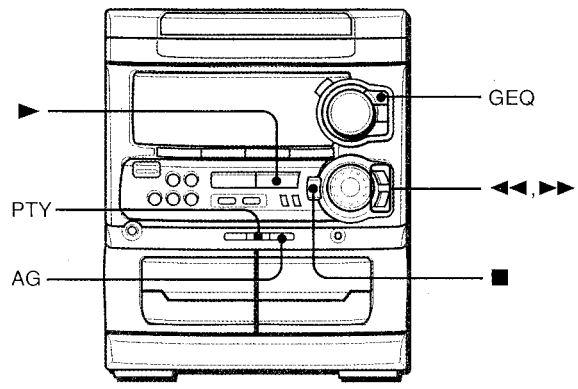
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
0 1 2 3 4 5 6 7 8 9 < > ? " ' ※ @ ⌐ _ ! − + /

If a character transmitted by the broadcast is not applicable to receivers, a blank space is inserted.

***4Radiotext (RT)**
Information such as the cast list of a play or the title of a song is shown on the display.

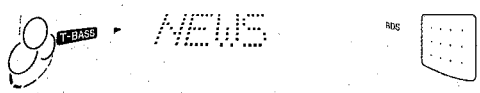
SEARCHING WITH THE HELP OF RDS CODES

Each RDS station identifies the type of program (*5PTY) which it is currently broadcasting. If you specify a PTY, the unit can automatically detect a suitable station from the preset stations. In addition, the *6EON (Enhanced Other Networks) service works in some areas, so that searching is much faster.



TO DISPLAY THE PTY

Press PTY once during RDS reception.



Programs are classified as follows:

TRAFFIC, NEWS, AFFAIRS (current affairs), INFO (information), SPORT, EDUCATE (education), DRAMA, CULTURE, SCIENCE, VARIED, POP M (pop music), ROCK M (rock music), M.O.R.M. (middle of the road music), LIGHT M (light classical), CLASSICS (serious classical), OTHER M (other music), WEATHER, FINANCE, CHILDREN (children's programmes), SOCIAL A (social affairs), RELIGION, PHONE IN (public views), TRAVEL, HOBBIES, JAZZ (jazz music), COUNTRY (country music), NATION M (national music), OLDIES (oldies music), FOLK M (folk music), DOCUMENT (documentary), TEST (alarm test), ALARM!

NOTE

- If program type information is not being transmitted, "NO PTY" is displayed.
- If undefined program type information is being transmitted, "UNDEFINE" is displayed.
- The unit identifies TRAFFIC with one of the program types.

TO SEARCH FOR A SPECIFIED PTY

1 **Press PTY.**
The program type of the currently tuned station is displayed.

2 **Within 4 seconds, press ◄◄ DOWN or ►► UP to select a program type.**

3 **Within 4 seconds, press PTY again.**
The search automatically checks every preset station. After identifying a suitable station, the station will be selected.

EON service for the PTY search
When EON service works to transmit PTY, a suitable station is detected without checking every preset station. When a station transmits EON information, it takes about 15 to 30 seconds for the unit to decode the EON information. After decoding the information, "EON" lights up on the display.

When a station is not found
"NOT FOUND" is displayed and the unit returns to the previous station.

When the TRAFFIC program type is selected
The unit searches for a station transmitting a *7TP code. However, the tuned station may not be broadcasting a traffic announcement currently. Wait for a while. The tuned station broadcasts traffic information regularly and a traffic announcement will be made.

EON SEARCH

During FM reception, the unit switches to radio programs with the specified PTY automatically as soon as they begin.

1 **Press PTY.**
The program type of the currently tuned station is displayed.

2 **Within 4 seconds, press ◄◄ or ►► to select a program type.**

3 **Within 4 seconds, press ❚❚ SET.**
"EON ON" is displayed for 3 seconds. Then, "EON" starts flashing and the unit enters EON search standby mode.
When radio program with the specified PTY in the another radio station begins, it interrupts the currently playing radio program and the radio program with the specified PTY is heard. At this time, "EON" flashes rapidly.
At the end of the radio program with the specified PTY, the previous FM radio station is restored.
- EON search standby mode is stored until it is cancelled even if the power is turned off.

To restore the previous FM station during reception of the radio program with the specified PTY
Press ► **PRESET**.
At this time, EON search standby mode is cancelled.

To cancel EON search standby mode
Keep **PTY** pressed. (Do not release **PTY** yet.) "EON PTY" and the specified "PTY" are displayed alternately. At this time, press ❚❚ **SET** with pressing **PTY**. "EON OFF" is displayed and EON search standby mode is cancelled.

NOTE

The EON search function does not work when:
- FM stations are not preset.
- The signals of stations with the specified PTY are weak.

OTHER FUNCTION OF RDS CODES

Auto GEQ function

The equalization curve is switched automatically to match the music program type of an RDS station.

Press AG.

"AG" lights up.

To cancel, press it again.

GEQ matching PTY:

PTY	GEQ
POP M	POP
ROCK M	ROCK
LIGHT M	CLASSIC
CLASSICS	CLASSIC
JAZZ	CLASSIC
COUNTRY	POP
NATION M	POP
OLDIES	POP
FOLK M	CLASSIC
Others	off

The selected GEQ can be changed to suit your preference by pressing **GEQ**. During this time, the Auto GEQ function is cancelled.

Clock-time (*8CT)

The CT function provides the unit with information about the local time. The CT function works whenever a CT station is received.

If you have not set the clock (the clock flashes on the display)

The current time can be set automatically by tuning in to an RDS station.

If no RDS station is preset, keep ◄◄ **DOWN** or ►► **UP** pressed until "RDS" lights up.

If the clock does not agree with the broadcast time

An RDS signal will update the clock time on the hour every hour.

***5Program type identification (PTY)**

PTY allows selection of listening by one of 15 or more program types rather than by a station.

***6Enhanced other networks information (EON)**

EON information gives the receiver a cross reference to other stations and allows the receiver to switch from the currently tuned station to another RDS station.

***7Traffic program identification (TP)**

This is a code which informs the receiver that a tuned station regularly broadcasts traffic information.

***8Clock-time (CT)**

CT function provides an accurate clock signal which is self adjusting to time zones and seasonal time changes.

To change the MW tuning interval

The default setting of the MW tuning interval is 9 kHz/step. If you use the unit in an area where the frequency allocation system is 10 kHz/step, change the tuning interval as follows.

Press **POWER** while pressing **TUNER BAND**.

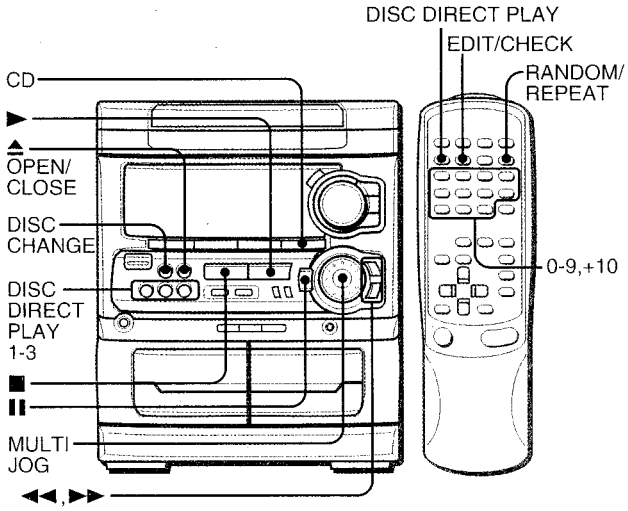
To reset the interval, repeat this procedure.

NOTE

When the MW tuning interval is changed, all preset stations are cleared. The preset stations have to be set again.

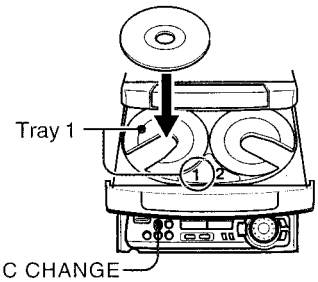
BASIC OPERATIONS

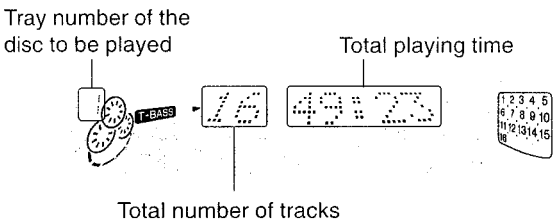
LOADING DISCS



Press CD, then press ≜ OPEN/CLOSE to open the disc compartment. Load disc(s) with the label side up.

To play one or two discs, place the discs on tray 1 and 2.
To play three discs, press **DISC CHANGE** to rotate the trays after placing two discs. Place the third disc on tray 3.
Close the disc compartment by pressing ≜ **OPEN/CLOSE**.

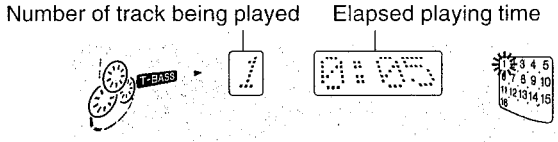




PLAYING DISCS

Load discs.

To play all discs in the disc compartment, press ►.
Play begins with the disc on tray 1.



To play one disc only, press DISC DIRECT PLAY 1-3.
The selected disc is played once.

To stop play, press ■.
To pause play, press ❚❚. To resume play, press again.
To search for a particular point during playback, keep ◄◄ or ►► pressed and release it at the desired point.
To skip to the beginning of a track during playback, press ◄◄ or ►► repeatedly or turn **MULTI JOG**.
To remove discs, press ≜ **OPEN/CLOSE**.

To start play when the power is off (Direct Play Function)

Press **CD**. The power is turned on and play of the loaded disc(s) begins.
When ≜ **OPEN/CLOSE** is pressed, the power is also turned on and the disc compartment is opened.

To check the remaining time

During play, press **EDIT/CHECK** on the remote control. The amount of time remaining until all tracks finish playing is displayed. To restore the playing time display, repeat the above.

Selecting a track with the remote control

1 Press **DISC DIRECT PLAY**, then press numbered buttons **1-3** within 3 seconds to select a disc.
2 Press numbered buttons **0-9** and **+10** to select a track.
Example:
To select the 25th track, press **+10**, **+10** and **5**.
To select the 10th track, press **+10** and **0**.
The selected track starts to play and continues to the end of that disc.

Replacing discs during play

While one disc is playing, the other discs can be replaced without interrupting play.
1 Press **DISC CHANGE**.
2 Remove the discs and replace with other discs.
3 Press ≜ **OPEN/CLOSE** to close the disc compartment.

NOTE

- When loading an 8-cm (3-inch) disc, put it onto the inner circle of the tray.
- Do not place more than one compact disc on one disc tray.
- Do not tilt the unit with discs loaded. Doing so may cause malfunctions.
- If the CD tray is held by something such as hands while it is opening, the CD tray will close automatically. In this case because of the protector for the CD mechanism the CD cannot play even if ► is pressed.
  To play the CD, press ≜ **OPEN/CLOSE** to open and close the CD tray, then press ► to start play.
- Do not use irregular shape CDs (example: heart-shaped, octagonal ones). It may result in malfunctions.

RANDOM /REPEAT PLAY

Use the remote control.

RANDOM play
All the tracks on the selected disc or all the discs can be played randomly.

REPEAT play
A single disc or all the discs can be played repeatedly.

Press RANDOM/REPEAT.
Each time it is pressed, the function can be selected cyclically.
RANDOM play — RANDOM lights up on the display.
REPEAT play — ↻ lights up on the display.
RANDOM/REPEAT play — RANDOM and ↻ light up on the display.
Cancel — RANDOM and ↻ disappear from the display.

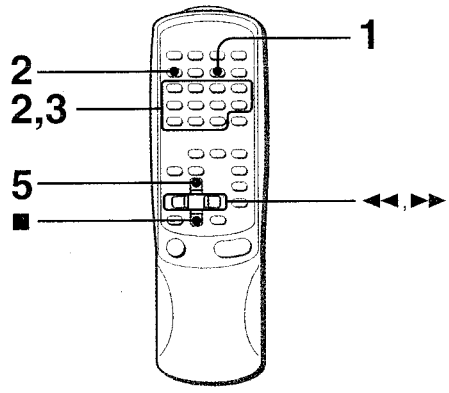
To play all discs, press ► to start play.
To play a single disc, press one of **DISC DIRECT PLAY 1-3** to start play.

NOTE

During random play it is not possible to skip to the previously played track with ◄◄.

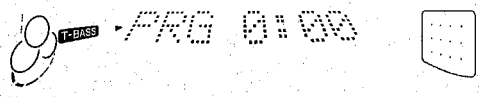
PROGRAMMED PLAY

Up to 30 tracks can be programmed from any of the inserted discs.



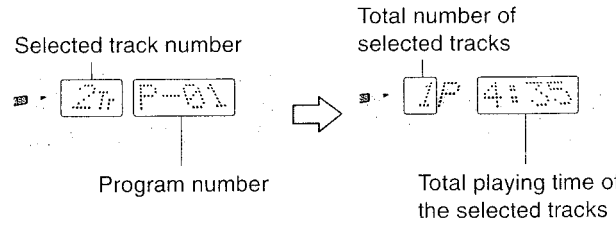
Use the remote control.

***1* Press PRGM in stop mode.**
"PRG" is displayed .



***2* Press DISC DIRECT PLAY, then press numbered buttons 1-3 within 3 seconds to select a disc.**
Go to the next step when the tray stops rotating.

***3* Press numbered buttons 0-9 and +10 to program a track.**
Example:
To select the 25th track, press **+10**, **+10** and **5**.
To select the 10th track, press **+10** and **0**.



***4* Repeat steps 2 and 3 to program other tracks.**

***5* Press ► to start play.**

To check the program
Each time ◄◄ or ►► is pressed in stop mode, a disc number, track number, and program number will be displayed.

To clear the program
Press ■ **CLEAR** in stop mode.

To add tracks to the program
Repeat steps 2 and 3 in stop mode. The track will be programmed after the last track.

To change the programmed tracks
Clear the program and repeat all the steps again.

To play the programmed tracks repeatedly
After programming the tracks, press **RANDOM/REPEAT** repeatedly until ↻ appears on the display.

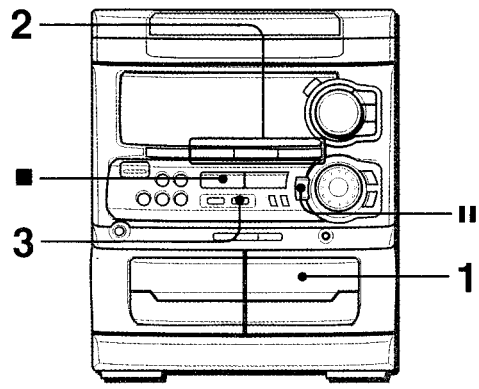
NOTE

During programmed play, you cannot perform random play, checking the remaining time, and selecting a disc or track.

En

BASIC RECORDING

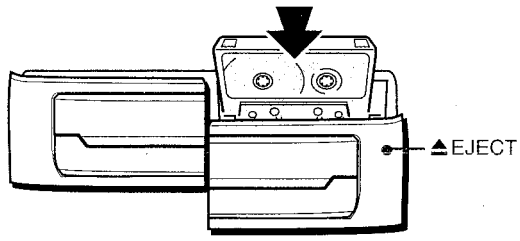
This section explains how to record from the tuner, CD player, or external equipment.



Preparation
- Use Type I (normal) tapes only.
- Set the tape to the point where recording will start.
- Note that recording is done on only one side of the tape.

1 Insert the tape to be recorded on into deck 2.

Insert the tape with the side to be recorded on first facing out from the unit.



2 Press function (CD, TUNER or VIDEO/AUX) and prepare the source to be recorded.

To record from a CD, press **CD** and load the disc(s).
To record from a radio broadcast, press **TUNER** and tune in to a station.
To record from a connected source, press **VIDEO/AUX** and play.

3 Press ● REC/REC MUTE to start recording.

When the selected function is CD, playback and recording start simultaneously.

To stop recording, press ■.
To pause recording, press **II**. (Applicable when the source is TUNER or VIDEO/AUX) To resume recording, press it again.

Sound adjustment during recording
The output volume and tone of the speakers or headphones may be freely varied without affecting of the recording.

NOTE
If squealing or beating sounds occur when recording an MW or LW broadcast, press **MONO TUNER** on the remote control until "BEAT 1" or "BEAT 2" is displayed, so as to eliminate the noise.

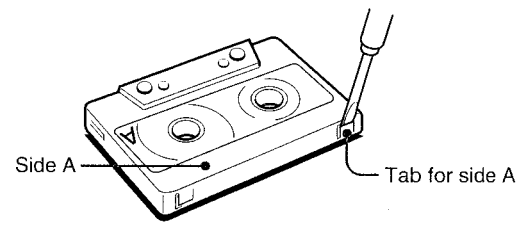
INSERTING BLANK SPACES

Insertion of 4-second blank spaces enables you to activate the *Music Sensor function. (Applicable when the source is TUNER or VIDEO/AUX.)

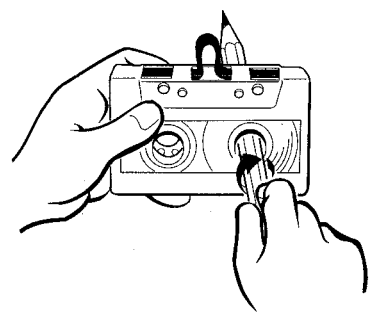
1 **Press ● REC/REC MUTE during recording or while in recording pause mode.**
REC on the display flashes for 4 seconds and 4-second blank space is made. Then the deck enters the recording pause mode.
2 **Press II to resume recording.**

To insert a blank space of less than 4 seconds, press ● **REC/REC MUTE** again while **REC** is flashing.
To insert blank spaces of more than 4 seconds, after the deck enters recording pause mode, press ● **REC/REC MUTE** again. Each time the button is pressed, a 4-second blank space is added.
**This unit does not have the Music Sensor function.*

About cassette tapes
- **To prevent accidental erasure**, break off the plastic tabs on the cassette tape after recording with a screwdriver or other pointed tool.

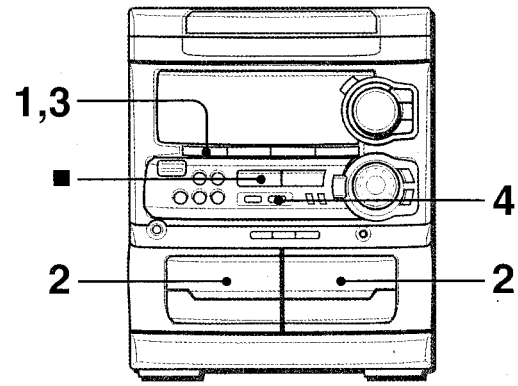


To record on the tape again, cover the tab openings with adhesive tape, etc.
- **120-minute or longer tapes** are extremely thin and easily deformed or damaged. They are not recommended.
- **Take up any slack in** the tape with a pencil or similar tool before use. Slack tape may break or jam in the mechanism.



To erase a recording
1 Insert the tape to be erased into deck 2 and press **TAPE DECK 1/2** to display "TP 2".
2 Set the tape to the point where the erasure is to be started.
3 Press ● **REC/REC MUTE** to start the erasure.

DUBBING A TAPE MANUALLY



NOTE

Set the tape to the point where recording will start.

1 **Press TAPE.**

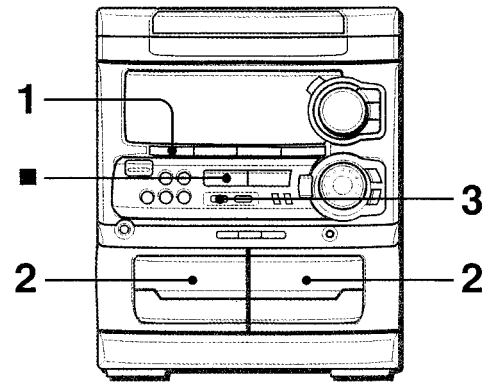
2 **Insert the original tape into deck 1 and the tape to be recorded on into deck 2.**
Insert the tapes with the sides to be played back or recorded on facing out from the unit.

3 **Press TAPE DECK 1/2 to select deck 1.**
"TP 1" is displayed.

4 **Press ● REC/REC MUTE to start recording.**
Playing and recording start simultaneously.

To stop dubbing
Press ■.

DUBBING THE WHOLE TAPE



This function allows you to make exact copies of the original tape.

NOTE

Dubbing does not start from a point halfway in the tape.

1 **Press TAPE.**

2 **Insert the original tape into deck 1 and the tape to be recorded on into deck 2.**
Insert each tape with the side to be played back or recorded on facing out from the unit.

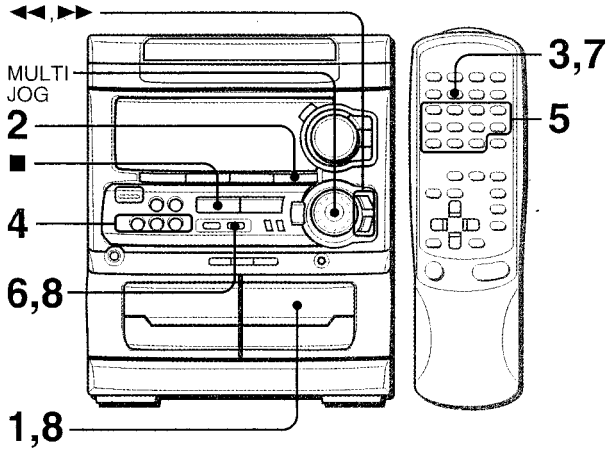
3 **Press SYNC DUBBING to start recording.**

The tapes are rewound to the beginning of the front sides, and recording starts.
Recording of front side is finished, deck 1 and deck 2 enter stop mode. To record reverse side, turn over the tapes in deck 1 and deck 2. Then, press **SYNC DUBBING** again.

To stop dubbing
Press ■.

En

AI EDIT RECORDING



The AI edit recording function enables CD recording without worrying about tape length and track length. When a CD is inserted, the unit automatically calculates the total track length. If necessary, the order of tracks is rearranged so that no track is cut short.
(AI: Artificial Intelligence)

NOTE

AI edit recording will not start from a point halfway into the tape. The tape must be recorded from the beginning of either side.

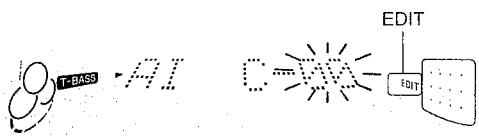
***1* Insert the tape into deck 2.**

Insert the tape with the side to be recorded on first facing out from the unit.

2 Press CD and load the disc(s).

***3* Press EDIT/CHECK once on the remote control.**

"EDIT" is displayed.



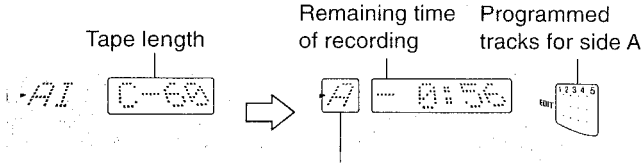
• When "PRGM" is displayed, press **EDIT/CHECK** again.

***4* Press DISC DIRECT PLAY 1-3 to select a disc.**

***5* Press numbered buttons 0-9 on the remote control to designate the tape length.**

10 to 99 minutes can be specified.
Example: When using a 60-minute tape, press **6** and **0**.
In a few seconds, the tracks to be recorded on each side of the tape are determined.

• ◄◄, ►► or **MULTI JOG** are also available to designate the tape length.



Tape side
A: First recording side
B: Second recording side

***6* Press ● REC/REC MUTE to start recording on the first side.**

The tape is rewound to the beginning of the first side, the lead segment is played through for 10 seconds, and recording starts. When the last track programmed for side A is finished, deck 2 enters the recording stop mode. After entering the recording stop mode, go to step 7.

***7* Press EDIT/CHECK on the remote control to display the program for the second recording.**

"B" is displayed.

***8* Turn over the tape in deck 2 and press ● REC/REC MUTE to start recording on the second side.**

To stop recording

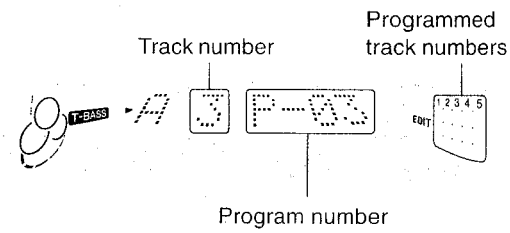
Press ■ **CLEAR**. Recording and CD play stop simultaneously.

To clear the edit program

Press ■ **CLEAR** twice so that "EDIT" disappears on the display.

To check the order of the programmed track numbers

Before recording, press **EDIT/CHECK** on the remote control to select side A or B, and press ◄◄ or ►► repeatedly.



To add tracks from other discs to the edit program

If there is any time remaining on the tape after step 5, you can add tracks from other discs in the CD compartment .

1 Press **EDIT/CHECK** on the remote control to select side A or B.
2 Press **DISC DIRECT PLAY 1-3** to select a disc.
3 Press numbered buttons on the remote control to select tracks. A track whose playing time is longer than the remaining time cannot be programmed.
4 Repeat steps 2 and 3 to add more tracks.

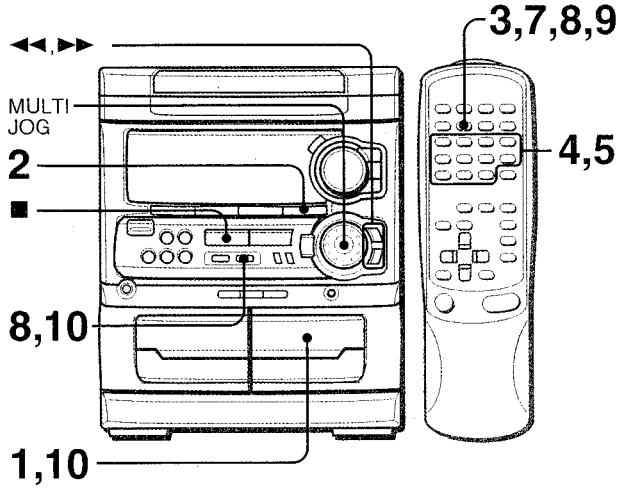
Time on cassette tapes and editing time

The actual cassette recording time is usually a little longer than the specified recording time printed on the label. This unit can program tracks to use the extra time. When the total recording time is a little longer than the tape's specified recording time after editing, the display shows the extra time (without a minus mark), instead of the time remaining on the tape (with the minus mark).

NOTE

The AI edit recording function cannot be used with discs containing 31 tracks or more.

PROGRAMMED EDIT RECORDING



In the programmed edit recording function the tracks can be programmed while checking the remaining time on each side of the tape.

NOTE

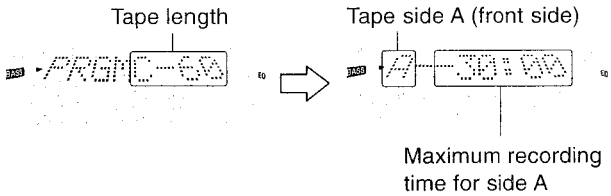
The programmed edit recording will not start from a point halfway in the tape. The tape must be recorded on from the beginning of either side.

1 **Insert the tape into deck 2.**
Insert the tape with the side to be recorded on first facing out from the unit.

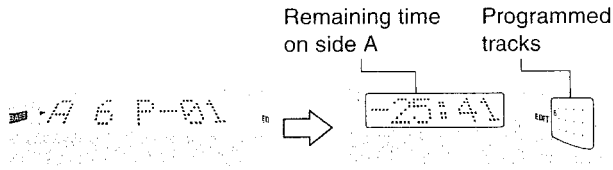
2 **Press CD and load the disc(s).**

3 **Press EDIT/CHECK twice on the remote control.**
"EDIT" and "PRGM" are displayed.
• When "AI" is displayed, press **EDIT/CHECK** again.

4 **Press numbered buttons on the remote control to designate the tape length.**
10 to 99 minutes can be specified.
• ◄◄, ►► or **MULTI JOG** are also available to designate the tape length.



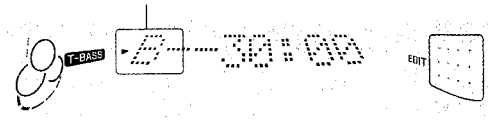
5 **Press DISC DIRECT PLAY 1-3 to select a disc. Then, press numbered buttons 0-9 and + 10 on the remote control to program a track.**
Example: To select the 10th track of disc 2, press **DISC DIRECT PLAY 2**, then press **+10** and **0**.



6 **Repeat step 5 for the rest of the tracks for side A.**
A track whose playing time is longer than the remaining time cannot be programmed.

7 **Press EDIT/CHECK on the remote control to select side B and program the tracks for side B.**
After confirming "B" on the display, repeat step 5.

Tape side B (reverse side)



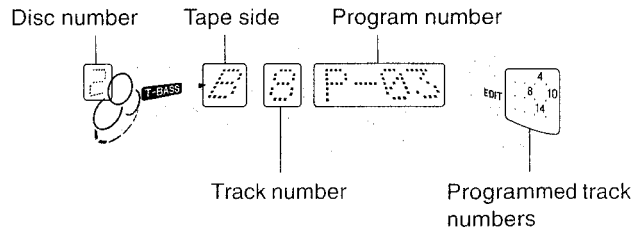
8 **Press EDIT/CHECK to select side A and press ● REC/REC MUTE to start recording.**
CD play and recording of edited tracks for the first side start simultaneously. When the last track programmed for side A is finished, deck 2 enters the recording stop mode. After entering the recording stop mode, go to step 9.

9 **Press EDIT/CHECK on the remote control for recording of the second side.**
"B" is displayed.

10 **Turn over the tape in deck 2 and press ● REC/REC MUTE to start recording.**
Recording starts.

To stop recording
Press ■ **CLEAR**. Recording and CD play stop simultaneously.

To check the order of the programmed track numbers
Before recording, press **EDIT/CHECK** on the remote control to select side A or B, and press ◄◄ or ►► repeatedly.



To change the program of each side
Press **EDIT/CHECK** on the remote control to select side A or B, and press ■ **CLEAR** to clear the program on the selected side. Then program tracks again.

To clear the edit program
Press ■ **CLEAR** twice so that "EDIT" disappears on the display.

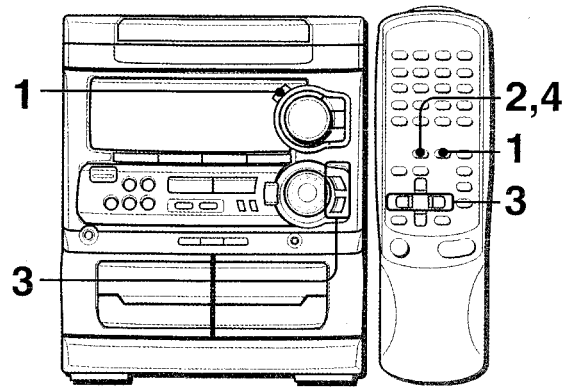
DOLBY PRO LOGIC

The DOLBY PRO LOGIC feature and the centre and rear speakers (standard) assure full-scale home theatre sound. When playing back laser discs or video software that have been recorded in Dolby Surround, astonishingly realistic sound surrounds the listener to create a new level of audio/visual entertainment.
Independent control of the four sound channels allows the listener to enjoy the same type of sound reproduction experienced in movie theatres. Voices are reproduced in the front and centre sound field, while ambient sounds like cars and crowds are reproduced on all sides of the listener for an incredibly lifelike audio/video experience. Please read the following carefully to "tune" the system's output to match the characteristics of your listening space.

Check the following:

- **Before using the DOLBY PRO LOGIC, adjust the proper balance of speaker sound levels.**
- Make sure the supplied speakers are properly connected and positioned. (See page 3 and 4.)
- Make sure the TV set and video unit are properly connected. (See page 4.)
- Make sure the laser disc, video tape, etc., support DOLBY SURROUND.

ADJUSTING SPEAKER LEVEL BALANCE



The unit is equipped with a built-in test signal generator called a noise sequencer for easy balance adjustment of all 4 channels. The sequencer outputs a noise signal that "travels" from channel to channel, enabling the simple adjustment of sound level to achieve, at the listening position, the same apparent loudness from each channel.

Use the remote control.

1 Press DOLBY PRO LOGIC to select "NORMAL".

"NORMAL" lights up in red.
If "PHANTOM" or "3 STEREO" lights up in red, press **DOLBY PRO LOGIC** repeatedly until "NORMAL" is selected.

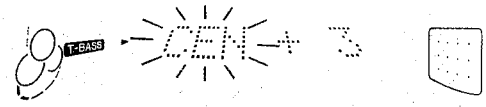
2 Press MANUAL SELECT (TEST) and hold it down for about 4 seconds until "L" flashes.

A noise signal is sent to each channel in turn in the following sequence.

→ **L**: Left speaker → **CEN**: Centre speaker → **R**: Right speaker → **SUR**: Surround speakers →

3 Adjust the sound level of the centre and the surround speakers.

While "CEN" or "SUR" is displayed, press ◄◄ **DOWN** or ►► **UP** to adjust the volume of the centre or each surround speaker to match the level of the front speakers.



To adjust the balance between the left and right front speakers, see page 7. At this time, the DOLBY PRO LOGIC mode should be cancelled by pressing **DOLBY PRO LOGIC** until the "PRO-OFF" is displayed.

4 Press MANUAL SELECT (TEST) again to stop the noise signal.

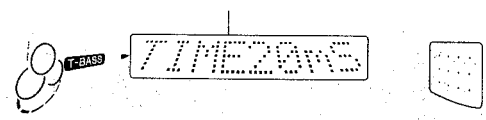
About the channels

The left and right front speakers create the stereo effect.
The centre speaker helps achieve precise sound positioning over a broad sound field.
The rear-mounted surround speakers enhance the "depth" of the sound field.

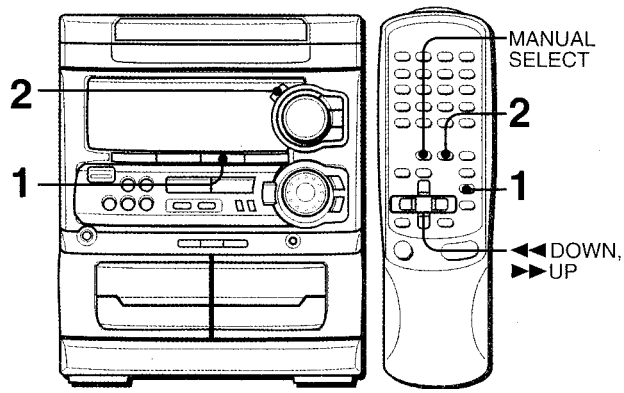
To change the delay time

The surround speakers reproduce sounds a split second after the front speakers. The delay is initially set to 20 ms (milliseconds).
To change this standard delay time, press **MANUAL SELECT (TEST)** on the remote control repeatedly until "TIME" is displayed. Then, press ◄◄ **DOWN** or ►► **UP**. Each time one of the buttons is pressed, the delay time changes as shown below.

15 mS ↔ 20 mS ↔ 30 mS



PLAY WITH DOLBY PRO LOGIC



1 **Press VIDEO/AUX and start playback of the video source.**
"VIDEO" is displayed.

2 **Press DOLBY PRO LOGIC.**
"NORMAL" is selected, and the playback sound has the DOLBY PRO LOGIC effect.

To cancel DOLBY PRO LOGIC mode
Press **DOLBY PRO LOGIC** repeatedly until "PRO-OFF" is displayed.

To change the sound levels during playback
After adjusting the balance with the noise sequencer, the sound levels of the centre or each surround speaker can be adjusted during playback of laser discs or video software.

1 Press **MANUAL SELECT (TEST)** on the remote control repeatedly to select "CEN" (centre speaker) or "SUR" (surround speakers).
2 While the "CEN" or "SUR" is displayed, press ◄◄ **DOWN** or ►► **UP** on the remote control to adjust the volume.

ADDITIONAL DOLBY PRO LOGIC MODES

In addition to the NORMAL mode, this unit is also equipped with the PHANTOM and the 3 STEREO modes.
PHANTOM mode: Use this mode when no centre speaker is connected. The centre channel signals are output through the left and right speakers.
3 STEREO mode: Use this mode when no surround speakers are connected. This mode reproduces rear sounds through the front speakers.

To select PHANTOM or 3 STEREO
Press **DOLBY PRO LOGIC** repeatedly until the desired DOLBY PRO LOGIC mode is displayed. The DOLBY PRO LOGIC mode is displayed cyclically as follows.

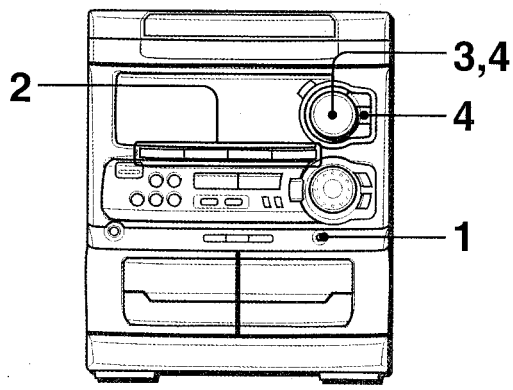
NORMAL → PHANTOM → 3 STEREO → PRO-OFF (cancel) →

To adjust the balance of connected speaker sound levels
Carry out steps 2 to 4 of "ADJUSTING SPEAKER LEVEL BALANCE".

NOTE

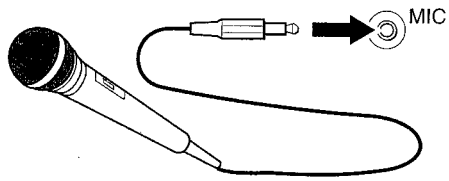
- Depending on the sound source and/or listening conditions, a surround effect may not be obtained even when the DOLBY PRO LOGIC is on.
- The full DOLBY PRO LOGIC effect cannot be obtained when using software without DOLBY SURROUND mark.
- The DOLBY PRO LOGIC is automatically cancelled when the headphones are plugged in.
- Set the microphone volume to OFF while the DOLBY PRO LOGIC is on. Otherwise, the DOLBY PRO LOGIC sound can not be reproduced correctly.

MICROPHONE MIXING



Microphone (not supplied) can be connected to this unit, allowing you to sing along to music sources.
Use a microphone with a mini plug (ø3.5 mm, 1/8 inch).

1 Connect your microphones to MIC jack.



2 Press one of the function buttons to select the source to be mixed, and play the source.

3 Adjust the volume and tone of the source.

4 Press MIC and turn VOLUME within 4 seconds to adjust the microphone volume.
The microphone volume can be selected from 1 to MAX (7) or OFF (cancel).

To record microphone sound mixed with source sound
Follow the procedure for recording from the sound source (see page 15).
SYNC DUBBING cannot be used for mixing recording.

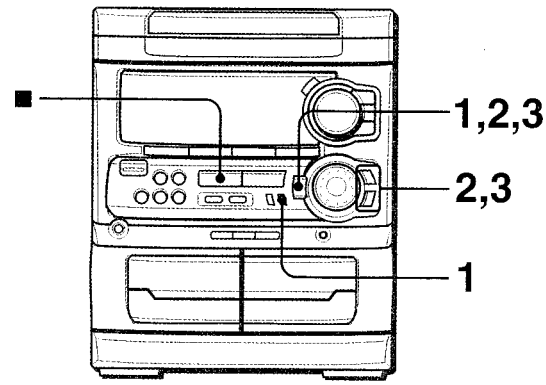
When the microphone is not being used
Set the microphone volume to OFF and remove the microphone from **MIC** jack.

NOTE

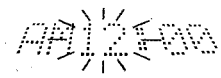
- If a microphone is held too near the speakers, a howling sound may be produced. In this case, hold the microphone away from the speakers, or decrease the microphone volume.
- If sound through the microphone is extremely loud, it may be distorted. In this case, decrease the microphone volume.
- When the function is changed, the microphone volume is set to off.

Recommended microphones
The use of unidirectional type microphones is recommended to prevent howling. Contact your local Aiwa dealer for details.

SETTING THE CLOCK



1 Press CLOCK, then press II SET within 4 seconds.



When using the remote control
Press **CLOCK**, then press **II SET** within 4 seconds.

2 Press ◄◄ DOWN or ►► UP to designate the hour, then press II SET.
The hour stops flashing and the minute starts flashing.

3 Press ◄◄ DOWN or ►► UP to designate the minute, then press II SET.
The minute stops flashing on the display and the clock starts from 00 seconds.

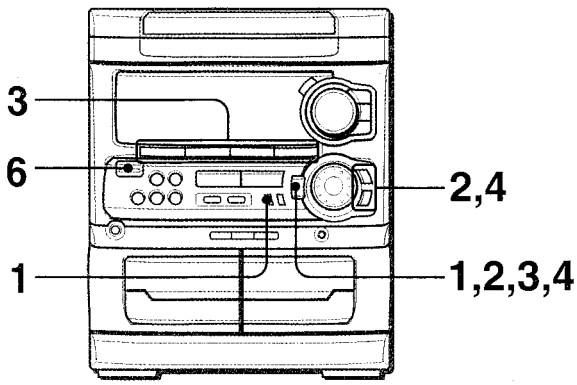
To display the current time
Press **CLOCK**. The time is displayed for 4 seconds.
However, the time cannot be displayed during recording.

To switch to the 24-hour standard
Press the **CLOCK** and then press ■ within 4 seconds.
Repeat the same procedure to restore the 12-hour standard.

If the clock display flashes
This is caused by a power interruption. The current time needs to be reset.
If power is interrupted for more than approximately 24 hours, all settings stored in memory after purchase need to be reset.

** **MULTI JOG** is also available instead of ◄◄ and ►►.*

SETTING THE TIMER



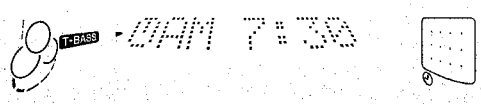
The unit can be turned on at a specified time every day with the built-in timer.

Preparation
Make sure the clock is set correctly.

1 **Press TIMER to display ◴, then press ❚❚ SET within 6 seconds.**
◴ is displayed and the hour flashes.

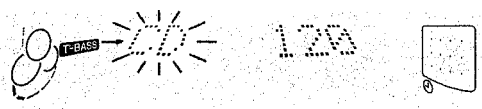
NOTE
If you press ❚❚ **SET** after 6 seconds, another operation may start.

2 **Designate the hour of the timer-on time by pressing ◄◄ DOWN or ►► UP, then press ❚❚ SET.**
Repeat to designate the minute of the timer-on time.



After you designate the timer-on time, one of the source names flashes on the display.

3 **Press FUNCTION to select a source, then press ❚❚ SET.**
• If **TUNER** is pressed, the band cannot be selected in this step.

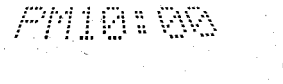


4 **Select the duration for the timer-activated period with ◄◄ DOWN or ►► UP, then press ❚❚ SET.**

The duration for the timer-activated period can be set between 5 and 240 minutes in 5-minute steps.

5 **Prepare the source.**
To listen to a CD, load the disc to be played first on tray 1.
To listen to a tape, insert the tape into deck 1 or 2.
To listen to the radio, tune in to a station.

6 **Press POWER to turn the unit off after adjusting the volume and tone.**
◴ remains on the display after the power is turned off (timer standby mode).



When the timer-on time is reached, the unit turns on and begins play with the selected source.
The volume level is automatically set to 20 when the power is turned off with the volume level set to 21 or more.

To check the specified time and source
Press **TIMER**. The timer-on time, the selected source name and the duration for the timer-activated period are displayed for 4 seconds.

To cancel timer standby mode temporarily
Press **TIMER** repeatedly until ◴ disappears on the display.
To restore the timer standby mode, press **TIMER** once or twice to display ◴.

Using the unit while the timer is set
You can use the unit normally after setting the timer.
Before turning off the power, carry out step 5 to prepare the source, and adjust the volume and tone.

NOTE
- Timer playback and timer recording will not begin unless the power is turned off.
- Connected equipment cannot be turned on and off by the built-in timer of this unit. Use an external timer.

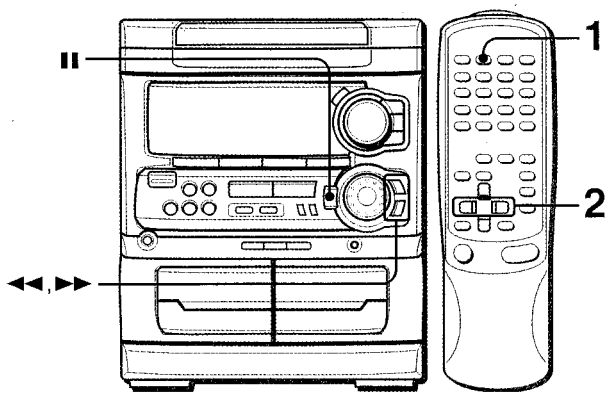
* ***MULTI JOG** is also available instead of ◄◄ and ►►.*

TIMER RECORDING

Timer recording is applicable for TUNER and VIDEO/AUX (with an external timer) sources only.

Press TIMER repeatedly until ◴ flashes on the display, then press ❚❚ SET within 6 seconds. Carry out the steps of "SETTING THE TIMER" from step 2 and insert the tape to be recorded on into deck 2 after step 5.

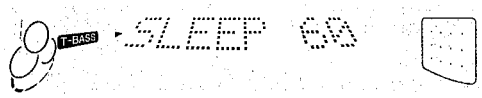
SETTING THE SLEEP TIMER



The unit can be turned off automatically at a specified time.

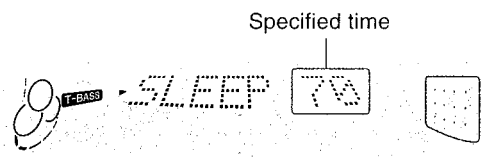
Use the remote control.

***1* Press SLEEP.**



***2* <u>Within 4 seconds</u>, press ◄◄ or ►► to specify the time until the power is turned off.**

Each time the button is pressed, the time changes between 5 and 240 minutes in 5-minute steps.



To check the time remaining until the power is turned off

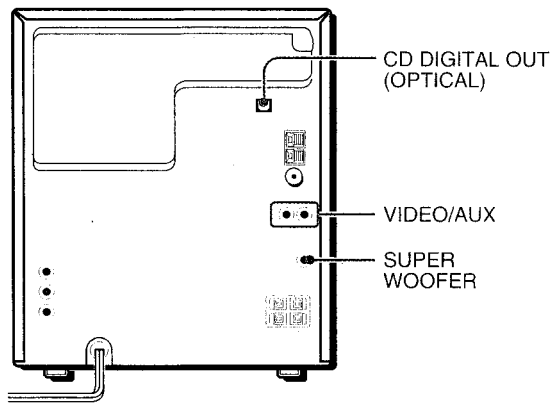
Press **SLEEP** once. The remaining time is displayed for 4 seconds.

To cancel the sleep timer

Press **SLEEP** twice so that "SLEEP OFF" appears on the display.

** **MULTI JOG** is also available instead of ◄◄ and ►►.*

CONNECTING OPTIONAL EQUIPMENT



Refer to the operating instructions of the connected equipment for details.

- The connecting cords are not supplied. Obtain the necessary connecting cords.
- Consult your local Aiwa dealer for optional equipment.

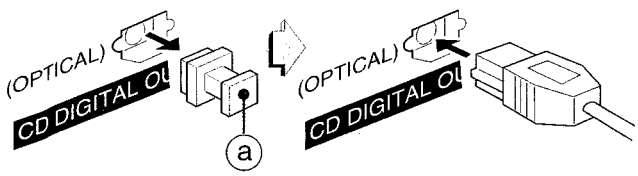
VIDEO/AUX JACKS

This unit can input analogue sound signals through these jacks. Use a cable with RCA phono plugs to connect audio equipment (turntables, LD players, MD players, VCRs, TV, etc.).
Connect the red plug to **VIDEO/AUX R** jack, and the white plug to **VIDEO/AUX L** jack.

When connecting a turntable
Use an Aiwa turntable equipped with a built-in equalizer amplifier.

CD DIGITAL OUT (OPTICAL) JACK

This unit can output CD digital sound signals through this jack. Use an optical cable to connect digital audio equipment (DAT deck, MD recorder, etc.).
Remove the dust cap ⓐ from **CD DIGITAL OUT (OPTICAL)** jack. Then, connect an optical cable plug to **CD DIGITAL OUT (OPTICAL)** jack.

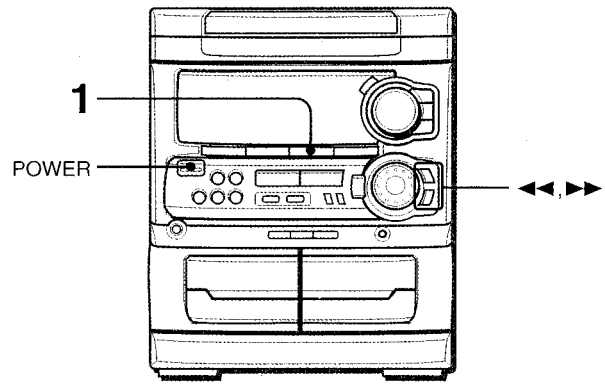


When CD DIGITAL OUT (OPTICAL) jack is not being used
Attach the supplied dust cap.

SUPER WOOFER JACK

Connect an optional powered sub woofer with a built-in-amplifier to the jacks.

LISTENING TO EXTERNAL SOURCES



To play equipment connected to **VIDEO/AUX** jacks proceed as follows.

1 Press VIDEO/AUX.
"VIDEO" appears on the display.

2 Play the connected equipment.

To change a source name in the display
When **VIDEO/AUX** is pressed, "VIDEO" is displayed initially. It can be changed to "AUX" or "TV".
With the power on, press **POWER** while pressing **VIDEO/AUX**. Repeat the procedure to select one of the names.

To adjust the sound level of the external source
When the sound level of the external source is much higher or much lower than that of other function sources, adjust it as follows.
1 Press **VIDEO/AUX** and play the equipment.
2 Presss ◄◄ or ►► so that the sound level becomes the same as that of other function sources.

NOTE
During recording, the sound level can not be adjusted.

CARE AND MAINTENANCE

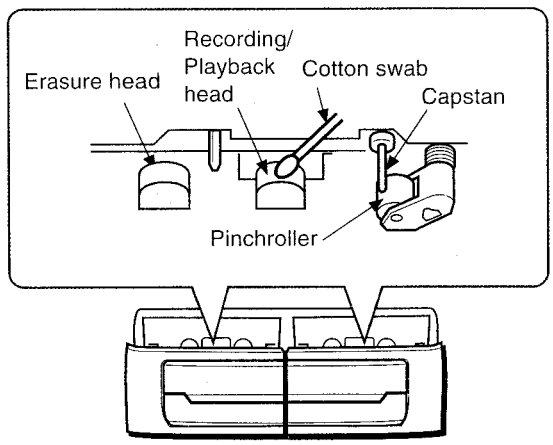
Occasional care and maintenance of the unit and the software are needed to optimize the performance of your unit.

To clean the cabinet

Use a soft and dry cloth.
If the surfaces are extremely dirty, use a soft cloth lightly moistened with mild detergent solution. Do not use strong solvents, such as alcohol, benzine or thinner as these could damage the finish of the unit.

To clean the heads and tape paths

After every 10 hours of use, clean the heads and tape paths with a head cleaning cassette or cotton swab moistened with cleaning fluid or denatured alcohol. (These cleaning kits are commercially available.)
When cleaning with a cotton swab, wipe the recording/playback head (deck 2 only), erasure head (deck 2 only), capstans, and pinchrollers.



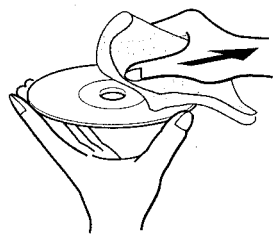
After cleaning the heads and tape paths with a liquid head cleaning cassette or a moistened swab, wait until the cleaned parts are completely dry before inserting the tapes.

To demagnetize the heads

The heads may become magnetized after long-term use. This may narrow the output range of recorded tapes and increase noise. After 20 to 30 hours use, demagnetize the heads with any commercially available demagnetizer.

Care of discs

- When a disc becomes dirty, wipe the disc from the centre out with a cleaning cloth.



- After playing a disc, store the disc in its case. Do not leave the disc in places that are hot or humid.

Care of tapes

- Store tapes in their cases after use.
- Do not leave tapes near magnets, motors, television sets, or any source of magnetism. This will downgrade the sound quality and cause noise.
- Do not expose tapes to direct sunlight, or leave them in a car parked in direct sunlight.

TROUBLESHOOTING GUIDE

If the unit fails to perform as described in these Operating Instructions, check the following guide.

GENERAL

There is no sound.
- Is the AC cord connected properly?
- Is there a bad connection? (→ page 3)
- There may be a short circuit in the speaker terminals.
  → Disconnect the AC cord, then correct the speaker connections.
- Was an incorrect function button pressed?

Sound is emitted from one speaker only.
- Is the other speaker disconnected?

An erroneous display or a malfunction occurs.
→ Reset the unit as stated below.

TUNER SECTION

There is constant, wave-like static.
- Is the antenna connected properly? (→ page 4, 5)
- Is the signal weak?
  → Connect an outdoor antenna.

The reception contains noise interferences or the sound is distorted.
- Is the system picking up external noise or multipath distortion?
  → Change the orientation of the antenna.
  → Move the unit away from other electrical appliances.

CASSETTE DECK SECTION

The tape does not run.
- Is deck 2 in pause mode? (→ page 8)

The sound is off-balance or not adequately high.
- Is the playback head dirty? (→ page 25)

Recording is not possible.
- Is the erasure prevention tab on the tape broken off? (→ page 15)
- Is the recording head dirty? (→ page 25)

Erasure is not possible.
- Is the erasure head dirty? (→ page 25)
- Is a metal tape being used?

High frequency sound is not emitted.
- Is the recording/playback head dirty? (→ page 25)

Cassette holder does not open.
→ Connect the AC cord and press **POWER** to turn the unit on. Then press ▲ **EJECT** to open the cassette holder.

CD PLAYER SECTION

The CD player does not play.
- Is the disc correctly placed? (→ page 13)
- Is the disc dirty? (→ page 25)
- Is the lens affected by condensation?
  → Wait approximately one hour and try again.

To reset

If an unusual condition occurs in the display window or the cassette decks, reset the unit as follows.

1 Press **POWER** to turn off the power.
2 Press **POWER** to turn the power back on while pressing ■ **CLEAR**. Everything stored in memory after purchase is cancelled.

If the power cannot be turned off in step 1 because of a malfunction, reset by disconnecting the AC cord, and connect it again. Then carry out step 2.

SPECIFICATIONS

Main unit CX-NAV320

FM tuner section

Tuning range	87.5 MHz to 108 MHz
Usable sensivity (IHF)	13.2 dBf
Antenna terminal	75 ohms (unbalanced)

MW tuner section

Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Usable sensitivity	350 µV/m
Antenna	Loop antenna

LW tuner section

Tuning range	144 kHz to 290 kHz
Usable sensitivity	1400 µV/m
Antenna	Loop antenna

Amplifier section

Power output	Front Rated: 30 W + 30 W (6 ohms, T.H.D. 1 %, 1 kHz/DIN 45500) Reference: 37 W + 37 W (6 ohms, T.H.D. 10 %, 1 kHz/DIN 45324) DIN MUSIC POWER: 75 W + 75 W Rear (Surround) Rated: 10 W + 10 W (8 ohms, T.H.D. 1 %, 1 kHz/DIN 45500) Reference: 12 W + 12 W (8 ohms, T.H.D. 10 %, 1 kHz/DIN 45324) DIN MUSIC POWER: 85 W + 85 W Centre Rated: 20 W (8 ohms, T.H.D. 1 %, 1 kHz/DIN 45500) Reference: 24 W (8 ohms, T.H.D. 10 %, 1 kHz/DIN 45324) DIN MUSIC POWER: 54 W
Total harmonic distortion	0.1 % (15 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO/AUX: 400 mV
Outputs	SPEAKERS: accept speakers of 6 ohms or more SUPER WOOFER: 1.3 V SURROUND SPEAKERS: accept speakers of 8 ohms to 16 ohms CENTRE SPEAKER: accepts speaker of 8 ohms or more PHONES (stereo jack): accepts headphones of 32 ohms or more

Cassette deck section

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 15000 Hz
Recording system	AC bias
Heads	Deck 1: Playback head × 1 Deck 2: Recording/playback head × 1, erase head × 1

Compact disc player section

Laser	Semiconductor laser (λ = 780 nm)
D-A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

General

Power requirements	230 V AC, 50 Hz
Power consumption	150 W
Dimensions of main unit (W × H × D)	260 × 330 × 346 mm
Weight of main unit	7.5 kg

Speaker system SX-NAV304

Cabinet type	2 way, bass reflex (magnetic shielded type)
Speakers	Woofer: 160 mm cone type Tweeter: 60 mm cone type
Impedance	6 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W × H × D)	235 × 324 × 260 mm
Weight	4.1 kg

Specifications and external appearance are subject to change without notice.

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OBSERVERA

Så länge som apparaten är ansluten till nätet flyter en svag ström genom densamma, även då den är avstängd. Om man under en längre tid ej har för avsikt att använda den, drag då ur nätkabeln.

BEMÆRK

Apparatet er stadig forbundet med lysnettet, så længe stikket er tilsluttet til stikkontakten, selv om afbryteren er slået fra. Hvis apparatet ikke bruges i længere tid, skal netledningen trækkes ud.

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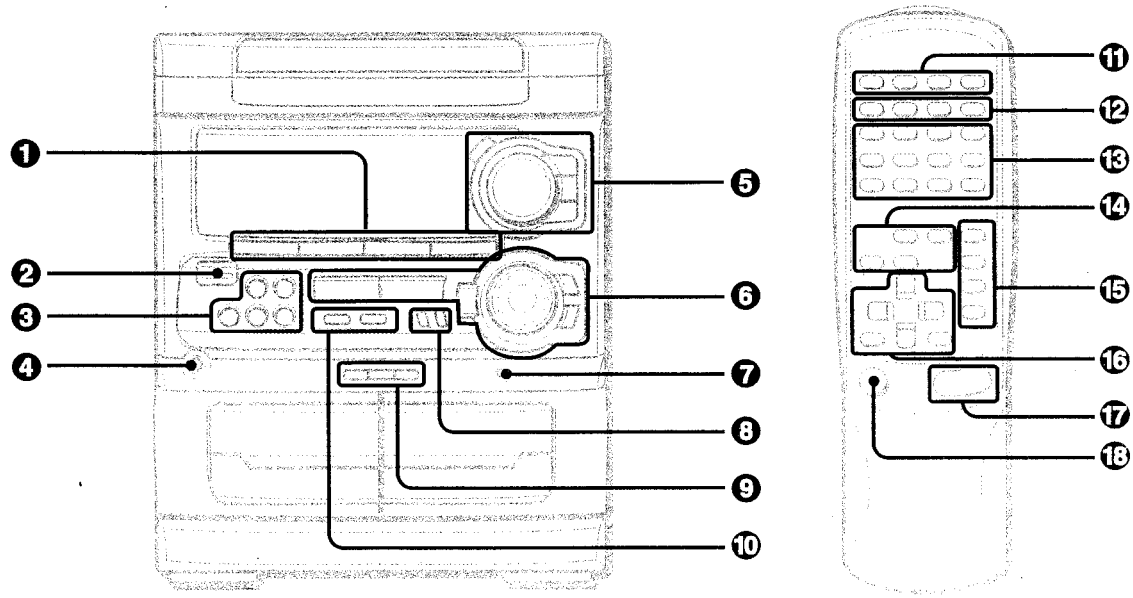

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